

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Original) A semiconductor device characterized by comprising a semiconductor substrate made of SiC; and an insulating film formed on said semiconductor substrate, wherein said insulating film is formed by a plasma treatment and contains a rare gas at least partly.
2. (Original) A semiconductor device according to claim 1, characterized in that said insulating film includes a gate insulating film.
3. (Original) A semiconductor device according to claim 1 or 2, characterized in that said insulating film contains at least one of krypton (Kr), argon (Ar), and xenon (Xe) as the rare gas.
4. (Currently Amended) A semiconductor device according to ~~any of claims 1, 2, and 3~~ claim 1 or 2, characterized in that at least part of said insulating film is one of an oxide film, an oxynitride film, and a nitride film.
5. (Currently Amended) A semiconductor device according to ~~any of claims 1, 2, 3, and 4~~ claim 1 or 2, characterized in that SiC forming said semiconductor substrate is a single crystal.
6. (Currently Amended) A semiconductor device according to ~~any of claims 1, 2, 3, 4, and 5~~ claim 1 or 2, characterized in that said insulating film is formed by the plasma treatment where a temperature of the substrate is 600°C or less.
7. (Currently Amended) A semiconductor device according to ~~any of claims 1, 2, 3, 4, 5, and 6~~ claim 1 or 2, characterized in that said insulating film is formed by one of direct oxidation, direct nitriding, and direct oxynitriding of a microwave-excited plasma.

8. (Currently Amended) A semiconductor device according to ~~any of claims 1, 2, 3, 4, 5, and 6~~ claim 1 or 2, characterized in that said insulating film includes at least one of an oxide film, a nitride film, and an oxynitride film formed by microwave-excited plasma CVD.

9. (Currently Amended) A semiconductor device according to ~~any of claims 1, 2, 3, 4, 5, and 6~~ claim 1 or 2, characterized in that said insulating film includes at least one of an oxide film, a nitride film, and an oxynitride film formed by one of direct oxidation, direct nitriding, and direct oxynitriding of a microwave-excited plasma and then by microwave-excited plasma CVD.

10. (Original) A semiconductor device characterized by comprising
a semiconductor substrate made of single-crystal SiC; and
an insulating film including a gate insulating film formed on said semiconductor substrate,
wherein said insulating film is formed by a plasma treatment,
said insulating film contains at least one of krypton (Kr), argon (Ar), and xenon (Xe) as a rare gas,
at least part of said insulating film is one of an oxide film, an oxynitride film, and a nitride film, and
said insulating film is formed by one of direct oxidation, direct nitriding, and direct oxynitriding of a microwave-excited plasma under a condition where a temperature of the substrate is 600°C or less.

11. (Original) A semiconductor device characterized by comprising
a semiconductor substrate made of single-crystal SiC; and
an insulating film including a gate insulating film formed on said semiconductor substrate,
wherein said insulating film is formed by a plasma treatment,
said insulating film contains at least one of krypton (Kr), argon (Ar), and xenon (Xe) as a rare gas,

at least part of said insulating film is one of an oxide film, an oxynitride film, and a nitride film, and

said insulating film is formed by one of oxidation, nitriding, and oxynitriding by microwave-excited plasma CVD under a condition where a temperature of the substrate is 600°C or less.

12. (Original) A semiconductor device characterized by comprising a semiconductor substrate made of single-crystal SiC; and an insulating film including a gate insulating film formed on said semiconductor substrate,

wherein said insulating film is formed by a plasma treatment, said insulating film contains at least one of krypton (Kr), argon (Ar), and xenon (Xe) as a rare gas,

at least part of said insulating film is one of an oxide film, an oxynitride film, and a nitride film, and

said insulating film is formed, under a condition where a temperature of the substrate is 600°C or less, by one of direct oxidation, direct nitriding, and direct oxynitriding of a microwave-excited plasma and then by one of oxidation, nitriding, and oxynitriding by microwave-excited plasma CVD.

13. (Original) A semiconductor device manufacturing method characterized by forming an insulating film by a plasma treatment on a semiconductor substrate made of SiC.

14. (Original) A semiconductor device manufacturing method according to claim 13, characterized in that said insulating film includes a gate insulating film.

15. (Original) A semiconductor device manufacturing method according to claim 13 or 14, characterized by using at least one of krypton (Kr), argon (Ar), and xenon (Xe) as a rare gas when forming said insulating film.

16. (Currently Amended) A semiconductor device manufacturing method according to ~~any of claims 13, 14, and 15~~ claim 13 or 14, characterized in that at least part of said insulating film is one of an oxide film, an oxynitride film, and a nitride film.

17. (Currently Amended) A semiconductor device manufacturing method according to ~~any of claims 13, 14, 15, and 16~~ claim 13 or 14, characterized in that SiC forming said semiconductor substrate is a single crystal.

18. (Currently Amended) A semiconductor device manufacturing method according to ~~any of claims 13, 14, 15, 16, and 17~~ claim 13 or 14, characterized by forming said insulating film by the plasma treatment where a temperature of the substrate is 600°C or less.

19. (Currently Amended) A semiconductor device manufacturing method according to ~~any of claims 13, 14, 15, 16, 17, and 18~~ claim 13 or 14, characterized by forming said insulating film by one of direct oxidation, direct nitriding, and direct oxynitriding of a microwave-excited plasma.

20. (Currently Amended) A semiconductor device manufacturing method according to ~~any of claims 13, 14, 15, 16, 17, and 18~~ claim 13 or 14, characterized in that said insulating film is one of an oxide film, a nitride film, and an oxynitride film formed by microwave-excited plasma CVD.

21. (Currently Amended) A semiconductor device manufacturing method according to ~~any of claims 13, 14, 15, 16, 17, and 18~~ claim 13 or 14, characterized in that said insulating film is one of an oxide film, a nitride film, and an oxynitride film formed by one of direct oxidation, direct nitriding, and direct oxynitriding of a microwave-excited plasma and then by microwave-excited plasma CVD.

22. (Original) A semiconductor device manufacturing method for forming an insulating film including a gate insulating film by a plasma treatment on a semiconductor substrate made of single-crystal SiC, said method characterized by

using at least one of krypton (Kr), argon (Ar), and xenon (Xe) as a rare gas when forming said insulating film,

at least part of said insulating film being one of an oxide film, an oxynitride film, and a nitride film, and

forming said insulating film by one of direct oxidation, direct nitriding, and direct oxynitriding of a microwave-excited plasma under a condition where a temperature of the substrate is 600°C or less.

23. (Original) A semiconductor device manufacturing method for forming an insulating film including a gate insulating film by a plasma treatment on a semiconductor substrate made of single-crystal SiC, said method characterized by

using at least one of krypton (Kr), argon (Ar), and xenon (Xe) as a rare gas when forming said insulating film,

at least part of said insulating film being one of an oxide film, an oxynitride film, and a nitride film, and

forming said insulating film by one of oxidation, nitriding, and oxynitriding by microwave-excited plasma CVD under a condition where a temperature of the substrate is 600°C or less.

24. (Original) A semiconductor device manufacturing method for forming an insulating film including a gate insulating film by a plasma treatment on a semiconductor substrate made of single-crystal SiC, said method characterized by

using at least one of krypton (Kr), argon (Ar), and xenon (Xe) as a rare gas when forming said insulating film,

at least part of said insulating film being one of an oxide film, an oxynitride film, and a nitride film, and

forming said insulating film, under a condition where a temperature of the substrate is 600°C or less, by one of direct oxidation, direct nitriding, and direct oxynitriding of a microwave-excited plasma and then by one of oxidation, nitriding, and oxynitriding by microwave-excited plasma CVD.